What is claimed is;

1. A method for manufacturing a semi-solid metal slurry having a uniform spherical structure, comprising:

feeding molten metal into a furnace;

agitating the molten metal in the furnace by application of an electromagnetic field through an electromagnetic agitator to remove a temperature difference in the molten metal while suppressing growth of dendrites;

performing rapid cooling for removing a specific heat and latent heat of the molten metal emitted from the furnace in a cooling part to prevent oxidation of the molten metal in an inert atmosphere while preventing dendrites from being formed therein; and

storing the cooled semi-solid metal slurry dropped through a guide member positioned at an angle such that the semi-solid metal slurry is uniformly distributed in a slurry storing container.

2. The method as set forth in claim 1, further comprising:

controlling an internal temperature of the molten metal using a temperature controller according to a temperature of the molten metal fed into the furnace and an atmospheric temperature in the furnace.

3. An apparatus for manufacturing a semi-solid metal slurry having a uniform spherical structure, comprising:

a furnace formed of a refractory material and having a housing formed at an upper portion thereof such that molten metal is fed into and discharged from the housing 1;

an electromagnetic agitator for generating an electromagnetic field through application of electricity to an outside of the furnace;

a cooler for performing rapid cooling of the molten metal discharged from the furnace;

a guide member positioned at an angle such that cooled slurry is guided along the guide member to a supporting frame equipped below the cooler; and

a storing part equipped below the guide member for uniformly storing the slurry dropped along the guide member.

4. The apparatus as set forth in claim 3, further comprising:

a temperature controller provided in the furnace for controlling an internal temperature of the molten metal according to a temperature of the molten metal fed into the furnace and an atmospheric temperature in the furnace

5. The apparatus as set forth in claim 4, wherein the

temperature controller comprises a temperature sensor, and a heating member for generating heat according to a signal from the temperature sensor.

6. The apparatus as set forth in claim 3, wherein the cooler comprises a space defined between an inner wall and an outer wall of the cooler such that a path is formed through the center of the cooler, and a supplying pipe formed at one side of the outer wall so as to be communicated with the space, the inner wall being formed with a plurality of injection holes communicated with the space.

7. The apparatus as set forth in claim 3, wherein the electromagnetic agitator is equipped to surround the outside of the furnace and the cooler.

8. The apparatus as set forth in claim 3, wherein the storing part comprises a slurry-storing container for containing the slurry dropped thereto, and a circulating member for circulating the slurry so that the slurry is uniformly stored within the slurry-storing container.

9. The apparatus as set forth in claim 8, wherein the circulating member circulates the slurry-storing container in a predetermined locus by means of an input program.

10. The apparatus as set forth in claim 8, wherein the slurry-storing container is formed of a ceramic material having a low thermal conductivity.